

The O-Boat Mystery Boats

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The mystery boats

by Geoffrey Barker

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It's the great untold story of Australian naval history. Throughout the last decade of the Cold War, Australian Oberon-class submarines conducted perilous intelligence-gathering operations off the coasts of Vietnam, Indonesia, China and India as part of a global effort to check the Soviet Navy's formidable fleet. Shrouded in secrecy until now, their exposure would have had the power to bring down the government of the day.

BLACK, BARNACLED CIGAR

Deep below the choppy surface in the South China Sea, they waited in silence. Inside a black, barnacled metal cigar, 90 meters long and 8.7 meters wide, the stench of diesel fuel and the sour sweat of the crowded 75 men pervaded the humid heat, but nobody noticed. On the surface above, a new Soviet frigate was heading into Vietnam's Cam Ranh Bay at a gentle five to six knots.

Seeing an opportunity for what submariners call an "underwater look", the O-boat commanding officer (CO) positioned himself about 1,000 yards (914 meters) behind the frigate to check its speed and course. Then he dived deep and closed quickly to about 200 yards behind the frigate to calculate the depth at which he could photograph its hull shape, propellers, weapons systems and sonar. How close he came would depend on the sea, the keel depth of the frigate and the height of the submarine.



Specialist "Mystery Boat" HMAS Orion (left), striking the jackstaff before a patrol and (right) HMAS Otama on passage

With these calculations in mind, the CO slowed the submarine to about a half-knot above the frigate's speed and listened to course and direction readings from his sonar operators. "Red two getting louder ... Green three softer ... right ahead," the sonar operators called, indicating how many degrees to port or starboard, or how directly, the two vessels were aligned. When the submarine was just 50 yards behind the frigate, the CO raised his periscope. Now, finally, he could see the wake of the frigate. It was his first close visual sighting.

He brought the submarine to within six feet (1.8 meters) of the frigate's hull and passed silently along one side. The O-boat's cameras and hydrophones recorded the images and sounds of the Soviet vessel. Once past the frigate, the CO altered course slightly, slowed down, and allowed the unsuspecting surface vessel to overtake the submarine on the opposite side. Again, the cameras and hydrophones were recording. "If you got it right the first time, it generally took about 30 minutes to complete the manoeuvre," retired RADM Peter Clarke tells The AFR

Magazine, 20 years later. "But it was a very full-on thing. You were driving several thousand tons of submarine to within feet of a vessel that you could not see."

RADM Clarke commanded the British O-boat HMS *Oberon* and the nuclear submarine HMS *Tireless* before transferring to the RAN 10 years ago. A former RAN submarine squadron commander and force element group leader, he adds: "You had to have a three-dimensional picture in your head of what was happening in the water. If you were taking an underwater look at a submarine, you were always concerned that it might dive onto you."

An underwater look was particularly perilous in the warm and turbid water of the South China Sea where visibility is poor. "If we'd raised our periscope, we would have punctured the surface ship's hull," another former O-boat commander recalls. But the risks of collision and death, or of the humiliation of discovery and capture, were worth taking for the intelligence rewards. A successful underwater look would give Western navies complete and accurate knowledge of the defensive and offensive performance capabilities of a potential Soviet adversary. In the event of hostilities, this would be an important combat edge.

<i>RAN OBERON CLASS (SSG)</i>	(RAN Website specifications)
<i>Displacement (tons):</i>	<i>2,196 tons Surfaced, 2,417 Submerged</i>
<i>Dimensions (feet):</i>	<i>295.5 x 26.5 x 18 (90 x 8 x 5.5 metres)</i>
<i>Propulsion:</i>	<i>Diesel-electric, 2 x diesels, 6,000 hp, 2 shafts</i>
<i>Max. Speed (knots):</i>	<i>16 Surfaced 18 Submerged</i>
<i>Armament:</i>	<i>8 x 21-inch torpedo tubes (6 fwd, 2 aft) Mk48 Torpedoes and Sub Harpoon missiles.</i>
<i>Complement:</i>	<i>62</i>

UNTOLD STORIES

What exactly the O-boats did from the end of the 1970s until the early 1990s has been one of the great untold stories of Australian naval history – until now. A decade after the end of the patrols, and nearly five years after the last O-boat was replaced by the Australian-built Collins class submarines, the navy is still extremely reluctant to discuss the patrols.



An Australian Collins class heads for sea.

Many former O-boat commanders say their work and achievements are still too sensitive to disclose. But they want their story to be told and acknowledged. One reason their freedom to speak openly is still restricted by security regulations is that the Collins class submarines are engaged in sensitive intelligence-collection activities. "We don't want to spook the neighbourhood," one knowledgeable political figure says.

But some lips have been loosened by the publication of books on the Cold War activities of the US and British submarine forces. *Blind Man's Bluff. The Untold Story of American Submarine Espionage*, by Sherry Sontag and Christopher Drew (Public Affairs, 1998), tells the American story. *We Come Unseen* by Jim Ring (John Murray, 2001) tells the British story.

Against the background of these publications, some Australian politicians, public servants and submariners have been prepared to give *The AFR Magazine* a glimpse into the secret and silent Cold War world of the O-boats, albeit usually on condition of anonymity. Quite apart from revealing a remarkable chapter of Australian maritime history for the first time, the story of the O-boat patrols shows just how diligently Australia has, down the decades and under successive governments, pursued the US alliance.

INCREASING CONCERNS

The Australian O-boat patrols were a response to increasing concerns about the expansion of the Soviet Pacific Fleet under Admiral Sergei Gorshkov from the early 1970s. "It was the second biggest fleet after the Northern Fleet based at Murmansk," a former intelligence officer recalls. "By the late 1980s, Cam Ranh Bay on Vietnam's east coast had become a highly significant Soviet base. There were at least 15 surface ships, some submarines, 30 bomber aircraft, a SIGINT (signal intelligence) station, missile-handling facilities and 10,000 Soviet troops," he says.

From Cam Ranh Bay, Soviet ships would go into the Pacific to target the West Coast of the US. And they were only a few days' travel from Australia's vital sea lines of communications. So the US and Australia shared concerns about the strategic implications of the big Soviet presence. Ironically, the Cam Ranh Bay base had been built by the Americans during the Vietnam War, but was leased by Vietnam to the Soviet Union in 1979. (In May 2002, Russia agreed to hand it back to Vietnam.)

CANCELLED 1992

Australia's secret O-boat patrols started in 1978 and ended in 1992. They were cancelled by the then Defence Minister in the Keating Labor government, Senator Robert Ray, who, according to senior submariners, panicked when told that one of the O-boats had come dangerously close to being detected. "We paid a high price with that cancellation, both in terms of the body of knowledge we were developing, and in terms of maintenance of the capability," says one veteran of the patrols.

There were, in all, 16 patrols during those 14 years, meaning that one O-boat was out collecting intelligence continuously for part of each year. Two of the six O-boats – *Orion* and *Otama* – were the RAN's designated 'mystery boats' and were specially fitted for intelligence operations. They made most of their patrols, but *Otway* and *Oxley* also made secret patrols. *Onslow* and *Ovens* were not involved but were deployed to track Soviet submarines moving into the Arabian Gulf from Vladivostok via the Coral Sea, south of Tasmania, across the Great Australian Bight and past Cape Leeuwin in WA. The Soviet subs took this route in an effort to avoid detection, but *Onslow* and *Ovens* kept an eye on them.

The men primarily responsible for the patrols were former O-boat CO (*Otama*, *Onslow* and *Otway*) CMDR Peter Horobin, who was deputy director of submarine policy, and the electronics expert James Armstrong, director of Navy Electronic Warfare. Horobin was a quiet and utterly determined Australian; Armstrong a brilliant English boffin who shocked his colleagues when he announced one day that his uncle was Donald Maclean, the notorious Soviet spy.

INITIAL MOTIVATION?

It is still not clear exactly why the RAN started the patrols. Some former O-boat commanders believe Australia felt it had to contribute high-quality intelligence to the US and UK to establish the RAN's credentials and credibility at what was then the sharp end of the global Cold War submarine contest. Former intelligence officers say the patrols started at the request of the US. What is certain is that the Australian submarine arm won its spurs in these perilous days of the Cold War.



Oboats alongside HMAS Platypus.

This was partly because the large US nuclear-powered deep ocean attack submarines were less suited to close-in intelligence-collection patrols in relatively shallow coastal waters. Moreover, the US and British nuclear submarine fleets were fully occupied tracking Soviet submarine activity from their submarine bases on the icy Kola Peninsula in the Barents Sea and at Petropavlovsk on the Kamchatka peninsula below the Sea of Okhotsk. US boats were also watching Soviet Pacific Fleet headquarters at Vladivostok on the Sea of Japan.

In the Northern waters, especially in the Arctic region, British Oberon class submarines were conducting electronic surveillance, acoustic signature recording and underwater looks. So it fell to the Australian O-boats to target Cam

Ranh Bay and the South China Sea. They also, inevitably, took the opportunity to look over, and listen in to, places of interest en route on the coasts of China and India, which had close defence relations with the Soviet Union.

EAVESDROPPING

“Conventional submarines are much better than nuclear submarines at littoral surveillance,” a political figure familiar with the secret patrols says. “They can get into harbours for a decent look. They can get close to boats and have a useful capacity to listen to their emissions and look at their sonar and propulsion systems.

“If they get close to the coast they also have a capacity to hear what else is around. By getting close to a facility or to a city you can identify a considerable amount of what is being emitted. And that is useful for targeting purposes,” he says.

The men who drove the O-boats were among the most remarkable Australian seafarers of their generation. Former commanding officers remember their training at the famous British Perisher submarine command course and their patrols as the most intensely lived moments of their lives. They included the legendary CMDR Bob Woolrych, now an avocado farmer in Queensland, and retired RADM Peter Briggs, who ended a distinguished naval career in charge of the Collins class submarine repair operation. Others remain in sensitive naval and intelligence posts.



RADM Peter Briggs, delivers the 2002 Creswell Oration.

The RAN acquired its six O-boats over 10 years from 1967 to replace a British submarine squadron that had operated in Australia since World War II. Built in Scotland, the O-boats were in service for 30 years. With refits and updates, they were the most silent and capable conventional diesel-electric submarines of their time and ideal for coastal intelligence collection.

SPECIFICATIONS (BUT SEE RAN WEBSITE DATA, ABOVE.)

The submerged displacement weight of the O-boats was 2,400 tons; their draft was 5.5 metres. Their maximum speed was 12 knots on the surface and 17.5 knots submerged. Their maximum safe dive depth was 200 metres. Fully armed, the O-boats carried 28 torpedoes that could be fired from six torpedo tubes. They could carry 100,000

gallons of diesel fuel in internal tanks and in numbers three and five of the main ballast tanks. In theory, they could circumnavigate the globe without refuelling.

Designed to accommodate a crew of five officers and 57 sailors, the so-called 'mystery boats' usually went on patrol with more than 70 people on board. In addition to their normal complement, there were always some submarine service trainees and civilian 'spooks' operating specialised intelligence-collection equipment. Among the crew, monitoring communications from shore facilities and vessels at sea, were specialist linguists, fluent in Russian and regional languages, who could warn of any indication that the submarine had been detected.

During patrols, perhaps not more than 10 people on board would know the boat's location. A curtain was placed around the chart table to discourage curious crew members. Once on patrol, crews quickly adjusted to the crowding and the stink of diesel and sweat; to 'hot-bunking' or sleeping on torpedo racks; to careful water use and to the need for minimal noise.

Initial personal tensions evaporated quickly once patrols were under way, although some COs noted that they tended to resurface as patrols ended and crews neared home. One O-boat had an unpopular executive officer named Trevor. The crew smuggled a budgerigar aboard, named it 'Trevor the Budgie' and trained it to shit on the officer's white shirt.

On top of the crowded, uncomfortable conditions, O-boat crews had to endure occasional food shortages. One crew famously survived for weeks on omelettes, scrambled eggs and pavlova when it found its supplies reduced to egg powder alone. Another ran out of toilet paper in the first week of a six-week patrol.

LONELY AND ISOLATED

More generally, life on the O-boats was lonely and isolated, as well as perilous. There was no communication with families. Personal bad news was withheld from crew members until patrols ended. And there was always the possibility of death at sea, or capture and imprisonment – or execution – as spies.

To the dismay of some O-boat veterans, the Australian Government has refused to recognise their service as warlike and denied their request for an active service medal (see inset below). The issue particularly rankles with Bob Woolrych. "In the event of capture, there were quite specific instructions on what to ask for in order to get better treatment. We thought it an exercise in pissing into the wind at the time ... We would have been thrown to the sharks," he says.

A TEST OF THEIR MEDAL

"The work was known to very few in government, defence and the navy. The missions were conducted as 'war patrols' and the tasks undertaken by these submarines (were) considered ... to be among the most hazardous undertaken by RAN seagoing units for many decades."

These words were written by the national president of the Australian Submarine Association, CAPT Barry Nobes, to the Defence Force Chief, GEN Peter Cosgrove as part of a plea for the Australian Active Medal (special operations) to be awarded to submariners who had served on the secret spy patrols.

But Cosgrove was unmoved. Whether the AASM or the ASM was the appropriate medal, he replied in August 2003, hinged on the definition of 'warlike' and 'non-warlike operations' 'under current regulations'. And the reviewing officers had determined the O-boat service warranted the ASM with a special ops clasp because the operations were non-warlike.

Why? "... the nature of these patrols was not warlike," Cosgrove wrote, "because the application of force was not authorised, there was no expectation of casualties, there was no state of declared war, there were no conventional combat operations against an armed adversary (and) they were not peace-enforcement operations."

Cosgrove's ruling offended O-boat drivers who had operated under rules of engagement that allowed hot pursuit of intelligence targets and permitted submarines to move within feet of surface ships for intelligence-collection purposes. But Cosgrove was adamant, telling submariners that they could be proud of their ASM with special ops clasp, and concluding: "I regret that I can be of no further assistance to you in the matter."

Some submariners were annoyed by CAPT Nobe's subsequent advice to them : "... we should accept this decision with the knowledge that we have done our best to secure a favourable outcome, but the regulations are very unlikely to be changed (and) do not permit it. I believe that any further submissions will be futile and possibly counter-productive in other areas, such as health and welfare, where we really do need support."

It is unlikely that this will be the last word on the medal issue. Submariners are tough and determined old salts and their claim for the AASM does seem to have been sunk by regulations that define warlike service very narrowly indeed. If the nature of the patrols and the dangers to which they exposed their crews were not in the ordinary meaning of the word 'warlike', then it is hard to see just what would qualify.

Certainly to describe such patrols as 'non-warlike' is to play down the hazards and the accomplishments. Service in the O-boats required courage and daring. It was more sustained and more active than much of the military service that now qualifies as active service.

The O-boats were organised in two watches and could be brought to action on either watch. Crews worked six-hour shifts and had four meals per day. Commanding officers, though, tended to survive on only two to two-and-a-half hours' sleep in every 24-hour period on patrol. "You were always prowling," one CO recalls.

The story of the O-boats is a salutary reminder of the seriousness of the long Cold War nuclear standoff that ended with the collapse of the Soviet Union. The dering-do of underwater looks wasn't the main activity of the O-boats. During their six-week patrols, mostly out of HMAS *Platypus*, their base in Neutral Bay, Sydney, they spent most of their time submerged in the South China Sea, with antennas raised above the water, conducting electronic surveillance. "Hoovering stuff out of the atmosphere," is how one former commander describes the activity.

ACOUSTIC SIGNATURE RECORDINGS

Their other task was to record the acoustic signatures of Soviet surface ships and submarines. The O-boat would lie submerged and silent, passive sonar hydrophones switched on, to record the sounds of passing ships and submarines. "We have been able to identify signatures for individual ships. Hulls, air-conditioning, pumps, have characteristic sound signatures," a commander recalls. The recorded sound signatures were fed into the computers of Australian, American and British submarines. This would enable them to identify the vessel and its capabilities in the event of hostilities. Again the combat edge would be important.

Although they operated under rules of engagement that prevented them from trespassing on the territorial waters of littoral states, they were permitted to pursue interesting targets if the CO judged the intelligence pay-off was worth the risk. The strictly enforced rule, however, was that the O-boats had to stay on the high seas.

As one former CMDR says: "There was no need to enter territorial waters, and the penalties were too high if you were caught. Most of the navy didn't know what we were doing, and probably only two politicians – the prime minister and the defence minister. You had an obligation to get it right, because if you stuffed up you could bring down a government." The O-boats were certainly not permitted to make pre-emptive torpedo attacks against potential adversaries, but they were permitted to go within six feet (1.8 metres) of vessels for those 'underwater looks'.

NEW ZEALAND'S EMBARRASSING DECISION

With the growth of the Soviet nuclear submarine fleet in the Atlantic theatre in the 1970s, the US navy set itself the task of achieving timely indications and warnings 24 hours a day, 365 days a year. Assisted by the smaller British submarine fleet, the US succeeded. A main focus of the British activity was high-quality intelligence collection, including from British Oberon class submarines and Australian submarine services. According to some authorities, however, the patrols may have acquired special urgency following the New Zealand Government decision in 1984 to exclude nuclear-armed American warships, and indeed all nuclear-armed vessels, from NZ waters.

The Americans responded to what they saw as a major crisis in the Western alliance by excluding New Zealand from what was known at the time as the 'Five Eyes' – the intelligence-sharing arrangements between Australia, Canada, New Zealand, UK and the US. The group was known secretly as 'AUSCANNZUKUS'. It held annual conferences with plenary, working and top-secret sessions.

The US eventually agreed that New Zealand could remain a member of the Five Eyes, but that it could not continue to receive the top-level information. At the time, despite its opposition to the NZ nuclear-ship policy, Australia found itself disadvantaged by regional association with New Zealand. Australian delegates at the 1984 and 1985 conferences, held in Washington and Ottawa, sensed that they too were being excluded from what one authority called "the really sexy stuff".

They were certainly excluded from the top-secret sessions. The result was a more intense Australian effort to regain US favour and full Five Eyes access by producing more and better intelligence information from its O-boat patrols. It was a gambit that worked to Australia's great advantage.

Mystery boats selectedBut long before these developments Australia had selected *Orion* and *Otama* to be its 'mystery boats'. They were given a specialised fit with, among other things, upward-looking cameras, detuned hydrophones to record unfiltered noise, and other sensors. Initially, however, the program did not have strong political or even navy support. "A lot was done by blokes on an ad hoc basis," RADM Clarke remembers. "The Defence Science and Technology Organisation and the Defence Signals Directorate worked on bits and pieces and so did some navy boffins. It was good stuff, done on a wing and a prayer. They did outstanding work."



As Otway rests in Holbrook, NSW, (left), so Ovens rests alongside the West Australian Maritime Museum.

Another former CO remembers that *Orion*, at least, was worked up for its role as a 'mystery boat' before it left the UK for Australia. "The Royal Navy were very good to us," another CO says. "They took out a lot of old gear and we got better cameras." A typical O-boat patrol would last from six to eight weeks from its beginning to its end at HMAS *Platypus*.

The first eight to 10 days would be a fast surface transit at about 12 knots. Then a surface-dive transit would follow at seven to 10 knots before a so-called 'discreet transit' into the area of operations. During three to three-and-a-half

weeks on station – listening, recording, watching – the O-boat remained submerged, with only masts raised, operating in what was called ‘ultra-quiet’ state.

The vessel might move out to sea from its offshore position at night in order to perform noisy tasks, including discharging wastes and charging batteries. On its return home, the boat’s performance would be affected by the drag created by barnacles that grew quickly in the warm South China Sea waters, clinging even to periscope lenses. Some O-boat commanders surfaced and scraped the barnacles at sea before entering port; others preferred to remove them with high-pressure water hoses once they were docked.

PRIMARY INTEREST: ATLANTIC

Despite the dangers they faced and the extraordinary intelligence they collected, there seems a consensus among former O-boat commanders that their patrols into the Pacific, South China Sea and the Indian Ocean were relatively less intense and less important than the US and British patrols in the Atlantic, Arctic and Northern Pacific region.

“For Washington,” a former commander says, “the primary interest was the Atlantic. It was more politically sensitive. Washington and London saw the Atlantic threat as more immediate than the Pacific threat.”



British O class submarines in the UK.

“I think we were always up against the second eleven,” says another. “Russian technology was never as good as ours. The Russians out of Cam Ranh Bay were not built for the tropics. They relied on petty officers and a crew of conscripts who knew very little. Their operations in the Pacific were at the lower end of the scale. They may have been better in home waters.”

None of this diminishes in any way the Cold War contribution of the O-boats. Senior figures in the US administration acknowledge the importance of their role and estimate that the Collins class submarines now boost US naval capability in the Pacific by 20 per cent. At the very least, as one O-boat commander puts it, the secret patrols admitted Australia to one of the biggest big games in the Cold War and demonstrated the capacity of the Australian submarine arm at a time of high international tension.

And where are they now? *Onslow* is at Sydney’s Darling Harbour; *Oxley* is in a park at Holbrook in southern NSW; *Ovens* is in Fremantle, WA; *Otama* is being prepared for display at Hastings, Victoria; *Oxley*’s fin is on display at HMAS *Stirling*, WA; and *Orion* will be scrapped.

Mystery boats no longer, the O-boats are now museum attractions, climbed over daily by children and parents who marvel at the equipment and machinery packed into their claustrophobic narrowness. They ask how more than 70 human beings managed to exist for nearly two months at a time inside these cramped and dangerous spaces far below the surface of the sea. The answer is simple: they were brave and balanced men who knew they were doing vital work for their country.

RAN OBERON DISPOSALS (RAN WEBSITE)

1957	Oxley	27/3/67 – 13/2/92. Scrapped
1959	Otway	23/4/68 – 17/2/94. Scrapped. Fin & upper surfaces used for “waterline”land based exhibit at Holbrook, N.S.W.
1960	Oslow	22/12/69 – 3/99. Gifted to the National Maritime Museum, Sydney.
1961	Orion	5/6/77 – 1996. Scrapped.
1962	Otama	27/4/78 – 15/12/00. Gifted to the town of Hastings, Victoria for use as a dry exhibit.
1970	Ovens	18/4/69 – 1/12/95. Gifted to the Western Australian Maritime Museum.

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2 THOUGHTS ON "THE O-BOAT MYSTERY BOATS"

[Hugh Scannell](#)

on [Wednesday 23 October, 2013 at 20:54](#) said:

The last paragraph says ‘it all’...

[Sam Bateman](#)

on [Tuesday 5 November, 2013 at 08:03](#) said:

In about 1991 I was serving as a Director-General in HQADF and was tasked with doing a study on the involvement of the ADF in secret intelligence operations. During the course of that study, I became of the view that due to the changed strategic circumstances with the end of the Cold War, the secret operations of the O-boats were no longer worth the risks involved. However, I received a visit from James Armstrong who told me in very blunt terms that I should desist from making any recommendation with regard to the O-boat operations, that I didn't have the full picture, and that if needs be, I would get a direct order from the Prime Minister himself not to recommend anything with regard to these operations. Needless to say, I took James' advice.